

ARTIS RESEARCH & RISK MODELING

FINAL REPORT - Spring 2010

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Subject: Final Report FA 9550-09-0119

Title: Mutual Influence of Moral Values, Mental Models and Social Dynamics on Intergroup Conflict

Efforts to resolve political conflicts or counter political violence often assume that adversaries make rational choices. Such assumptions are prevalent in risk assessment and modeling by foreign aid and international development projects, and by U.S. diplomatic, military and intelligence services. Almost no prior research has been conducted investigating value judgment and decision making in the domain of political violence and terrorism that is field-based. Most speculations are extrapolated from studies of Western college students, business negotiators and politicians. Models of individual and group based choices have tended to assume that theories of bounded rationality can explain choices to commit oneself or one's group to acts of political violence and terrorism. However, based on our preliminary research among Palestinian members of Hamas, members of radical madrassah's in Indonesia, and radical Israeli settlers, we find that decisions to commit oneself or one's community to political violence are driven by moral intuitions rather than cost-benefit calculations of *realpolitik*, the marketplace or "business-like" negotiations. The implication is that in order to understand, model and predict political violence we need to apply our emerging understanding of moral decision-making to a broader cross-cultural field investigation of the cognitive and emotional processes involved in decisions to engage in acts of political violence and terrorism. In addition we have to understand the group dynamics that make some value systems more or less contagious over different populations of minds at different times.

For this AFOSR contract initiating the study of Mutual Influence in Chile, Guatemala, Israel & the Palestinian Territories ARTIS has:

1. **Established a set of theoretical issues that systematically distinguish between sacred versus instrumental values** (e.g., immunity to tradeoffs, insensitivity, to quantity, etc.).
2. **Structured these differences into both between-subjects and within-subjects experimental designs that can be applied cross-culturally**, both in ways that can be embedded in mass random surveys and in more constrained lab settings.
3. **Developed an array of questions for surveys in attempt to establish significant patterns of inter-informant agreement or disagreement**; questions were designed to perform in lab and

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14. ABSTRACT A critical contribution of social science to improving national security prospects for the United States is to understand the behavioral mechanics and mental processing of inter-group hostility so as to influence and impede emerging conflicts before military or law enforcement means are required. We aim in this proposal to investigate the spread and influence of different cultural values and belief systems on developments within and between social networks. We will also explore the development and influence of social networks on the distribution and maintenance of antagonistic values and belief systems, and on the potential for transformation to values and beliefs that are less antagonistic. We will look at four test cases of inter-group conflict where we have already carried out pilot studies: in the Middle East, India, and in Central and South America.						
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in field so that we can establish significant patterns of inter-informant agreement or disagreement in order to assess mental models of sacred values, and levels of cultural consensus both within and between populations (for example, in performing principal components analysis, examining for patterns of positive eigenvalues, and using informant first factor scores as proxies for measures of cultural “competence” with respect to any latent “models” that might emerge). Patterns of inter-informant agreement and disagreement will serve as a basis for subsequent study of group dynamics (for example, relationships between social networks and patterns of inter-informant agreement in mental models).

4. Established a data collection infrastructure in field in the countries of Chile, Guatemala, India, Israel and the Palestinian Territories. Such infrastructure is essential to enable the utilization and training of new investigative partners on techniques of within- and between-subjects experimental design and how to embed these in mass surveys involving hundreds and thousands of people. At each of our field sites we ensure that our trained researchers and our to-be-trained researchers understand and implement the intricacies of this type of design. For our previous experience (working with trained field researchers led by PhD from top American universities) this takes considerable time to get right. However, once in place, the theoretical and explanatory power of experimentally-designed field-surveys go way beyond traditional surveys.

We have visited field sites in Guatemala, Chile, India and the Middle East to familiarize ourselves with local populations and governments and identify any problems that may arise in running experiments with human subjects. Ethics reviews have been conducted in all four locations. We have already collected preliminary data from previous federally-supported research in some of these areas, and will use this data and experience to inform this research. It is important that we continue the thorough nature of our research collaborations with local partners, which includes sharing preliminary findings with local leaders and representatives to better understand the significance that this research may have in our eyes and theirs. From our experience, this is key to establishing trust for long-term interdisciplinary research in field settings.

We will bring the various investigators, consultants and students to the field sites. Our experience in projects that have lasted more than a decade in specific field sites strongly indicates that establishing personal rapport among members of the research team in the field leads to a vastly more productive body of work than simply assigning tasks among members in their home institutions and offices. One aim of this research is to provide a model for future interdisciplinary field research, and to demonstrate the general usefulness of this approach to providing theoretical solutions to real world problems in readily applied ways.

5. Performed assessments of the generalizability, behavioral reality, and cultural relevance of our psychological tests and measures. We have assessed how to approach issues of sacred values on conflicts in multiple sites and have developed a research plan to collect and analyze data with field partners. We have modified the cross-cultural designs of our general hypothesis to meet the context of the populations to be studied.

We have conducted ground-truthing assessments on previous human subjects’ data from Guatemala to test overall validity of psychological findings for predicting actual behavior, and

thus ensuring a solid theoretical and empirical base for the next stage of research.

We have assessed whether symbolic concessions open the possibility for material compromises, as suggested in a paper we published in *Science* (Atran, Axelrod, Davis, 2007) involving the attitudes of Middle East leaders to various tradeoffs for peace. The hypothesis is that the negative effect of added material incentives for compromise over sacred values may be mitigated (or reversed) if these incentives follow a symbolic concession.

6. Successfully established local ethics boards and Institutional Review Boards in country (Israel, Palestinian Territories, Guatemala and Chile) to monitor cultural appropriateness of research. Protocols in each country have been approved and documentation submitted to the AFOSR. As adjustments are made to study design and research protocols we will convene in country ethics board to review, revise and approve research approach.

Data collection has not commenced – it will begin upon the renewal of contract, where we will perform data collection of open sources, interviews and survey instruments in the field and analyze data to explain the significance of the scientific findings.